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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/554,161

07/11/2006

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09/23/2009

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EXAMINER

STAFFORD, PATRICK

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<p align="center"><b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b></p>	<p><b>Application No.</b> 10/554,161</p>	<p><b>Applicant(s)</b> DELL'ACQUA ET AL.</p>	
	<p><b>Examiner</b> PATRICK STAFFORD</p>	<p><b>Art Unit</b> 2828</p>	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 07 September 2009 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: \_\_\_\_\_.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

/Minsun Harvey/  
Supervisory Patent Examiner, Art Unit 2828

Continuation of 3. NOTE: The amendment requires the limitation of "the thermostating means including a mechanical structure associated with the cavity." Although this limitation may have been previously presented as a dependent claim, at least claims 2-11 did not previously depend on this claim and so did not require the thermostating means including a mechanical structure associated with the cavity as they do now. Therefore, this amendment would require further consideration and/or search.

Continuation of 11. does NOT place the application in condition for allowance because: applicant's arguments have been fully considered but are not found persuasive. In response to applicant's argument that Nighan '298 is an intracavity doubled laser and so not a miniaturized cavity, the claim limitations do not require such a limitation. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Nighan'298 was relied upon to teach a diode pumped laser apparatus for generating a visible power beam, the laser apparatus comprising: a linear laser cavity (col. 5, lines 29-30 and Fig. 3, part 28) having crystals (col. 5, lines 22-25 and Fig. 3, parts 22, 34 and 36); a plurality of reflectors that are highly reflective at a fundamental wavelength of a laser beam generated by the laser cavity (col. 10, lines 2-4, lines 8-10 and Fig. 3, parts 44, 46, and 48), at least one of said reflectors being traversed by a pumping beam (Fig. 3, part 44 is traversed by part 30), and reflecting at said fundamental wavelength and a second harmonic wavelength with respect to said fundamental wavelength (Fig. 3, part 48), and being highly transmissive at said second harmonic of said fundamental wavelength (Fig. 3, part 46); an active material (Fig. 3, parts 22 and 34) with linear polarized emission (col. 6, lines 31-35 and Fig. 3, part 34) and with a gain configuration with small thermal aberration for cavity mode (col. 7, lines 41-43), said active material being able to generate said laser beam at the fundamental wavelength (col. 8, lines 6-8); a non linear crystal, inside said cavity (Fig. 3, part 36) and able to generate a second harmonic of said fundamental wavelength by non critical type I phase matching (col. 6, lines 44-47); and thermostating means associated with the cavity for temperature locking said cavity, the reflectors, the active material and the nonlinear crystal (col. 6, lines 45-52). In response to applicant's argument that Zanger '179 teaches a laser generator being outside the system and so does not teach a laser cavity, Zanger '179 was not relied upon to teach a laser cavity, nor was it relied upon to teach a laser system. The introduction of Zanger '179 was to teach the use of a non-linear crystal to generate the second harmonic of the fundamental wavelength by critical type I phase matching (paragraph 20, lines 7-9) in order to provide higher stability of laser generation through axis orientation (paragraph 41). The use of such a crystal in a laser system is taught by Zanger '179 and the combination of the references would result in the use of the non-linear crystal of Zanger '179 in the laser cavity system of Nighan '298, which is appropriate since Nighan '298 already teaches the use of a non-linear crystal in a laser cavity. The teaching in Zanger '179 of using noncritical crystals is not relied upon in the rejection. "Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. In *re Susi*, 440 F.2d 442, 169 USPQ 423 (CCPA 1971). "A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use." In *re Gurley*, 27 F.3d 551, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994)." See MPEP 2121. Furthermore Zanger '179 teaches the use of a non-linear crystal to generate the second harmonic of the fundamental wavelength by critical type I phase matching (paragraph 20, lines 7-9) in order to provide higher stability of laser generation through axis orientation (paragraph 41). Applicant's argument that Baer '849 teaches making the cavity as long as possible while the present invention teaches the cavity being a miniature cavity, the claim limitation does not require a miniature cavity, but instead requires the laser cavity having a length that does not exceed ten times the sum of the lengths of the crystals. Baer '849 teaches a laser cavity (col. 6, lines 4-8 and Fig. 1, part 10) with multiple crystals (Fig. 1, parts 20, 18), wherein the cavity length does not exceed ten times the sum of the lengths of the crystals (col. 6, lines 7-10) in order to affect the standing waves within the laser resonator (col. 6, lines 4-8). The fact that Baer '849 wishes to have a cavity longer than applicant may intend does not negate the fact that Baer '849 teaches the claim limitation as presented in applicant's claim and so defining applicant's claimed present invention. Furthermore, Baer '849 taught the claimed range and so meets the claim limitation. In response to applicant's argument that none of the prior art references teach the mirrors also are connected to the same structure as the crystals and that the whole structure (cavity) is thermostated or temperature controlled, Nighan '298 teaches the use of thermostating means for temperature locking the cavity (col. 9, lines 5-7). Rigrod '436 teaches a cavity with a thermostating means for temperature locking the cavity and its optical elements comprising a mechanical structure (col. 4, lines 8-10 and Fig. 1, part 29) in order to provide minimum transmission losses. Therefore, the combination teaches the claimed limitations of claim 1.